

MySQL IP Class Notebook

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1 Hospital

```
mysql> select * from HOSPITAL where NAME like '___';
```

| NO | NAME | AGE | DEPARTMENT | DATEOFADMIN | CHARGE | SEX |
|----|------|-----|------------|-------------|--------|-----|
| 6 | Siju | 23 | Cardiology | 2006-10-10 | 800 | M |
| 10 | Hari | 28 | Surgery | 2006-03-19 | 450 | M |

2 rows in set (0.00 sec)

```
mysql> update HOSPITAL set CHARGE=CHARGE-200 where SEX='F' and DE-  
PARTMENT='Cardiology';
```

Query OK, 1 row affected (0.11 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> select * from HOSPITAL;
```

| NO | NAME | AGE | DEPARTMENT | DATEOFADMIN | CHARGE | SEX |
|----|----------|-----|------------|-------------|--------|-----|
| 1 | Arpit | 62 | Surgery | 2006-01-21 | 300 | M |
| 2 | Zayana | 18 | ENT | 2005-12-12 | 250 | F |
| 3 | Kareem | 68 | Orthopedic | 2006-02-19 | 450 | M |
| 4 | Abhilash | 26 | Surgery | 2006-11-24 | 450 | M |
| 5 | Dhanya | 24 | ENT | 2006-10-20 | 350 | F |
| 6 | Siju | 23 | Cardiology | 2006-10-10 | 800 | M |
| 7 | Ankita | 16 | ENT | 2006-04-13 | 100 | F |
| 8 | Divya | 20 | Cardiology | 2006-11-10 | 300 | F |
| 9 | Nidhin | 25 | Orthopedic | 2006-05-12 | 700 | M |
| 10 | Hari | 28 | Surgery | 2006-03-19 | 450 | M |

10 rows in set (0.00 sec)

mysql> insert into HOSPITAL values (11, 'Rakesh', 45, 'ENT', 20080808, 1200, 'M');
 ERROR 1406 (22001): Data too long for column 'CHARGE' at row 1 **mysql>** alter table
 HOSPITAL modify CHARGE char(4); Query OK, 10 rows affected (1.96 sec) Records: 10
 Duplicates: 0 Warnings: 0

mysql> insert into HOSPITAL values (11, 'Rakesh', 45, 'ENT', 20080808, 1200, 'M');
 Query OK, 1 row affected (0.08 sec)

mysql> delete from HOSPITAL where AGE>60; Query OK, 2 rows affected (0.11 sec)

mysql> select * from HOSPITAL;

| NO | NAME | AGE | DEPARTMENT | DATEOFADMIN | CHARGE | SEX |
|----|----------|-----|------------|-------------|--------|-----|
| 2 | Zayana | 18 | ENT | 2005-12-12 | 250 | F |
| 4 | Abhilash | 26 | Surgery | 2006-11-24 | 450 | M |
| 5 | Dhanya | 24 | ENT | 2006-10-20 | 350 | F |
| 6 | Siju | 23 | Cardiology | 2006-10-10 | 800 | M |
| 7 | Ankita | 16 | ENT | 2006-04-13 | 100 | F |
| 8 | Divya | 20 | Cardiology | 2006-11-10 | 300 | F |
| 9 | Nidhin | 25 | Orthopedic | 2006-05-12 | 700 | M |
| 10 | Hari | 28 | Surgery | 2006-03-19 | 450 | M |
| 11 | Rakesh | 45 | ENT | 2008-08-08 | 1200 | M |

9 rows in set (0.00 sec)

mysql> insert into HOSPITAL values (12, 'Rakhi', 45, 'ENT', 20070802, NULL, 'F') ;
 Query OK, 1 row affected (0.06 sec)

mysql> insert into HOSPITAL values (13, 'Nishi', 45, NULL, 20090801, 450, 'F');
 Query OK, 1 row affected (0.08 sec)

mysql> select * from HOSPITAL;

| NO | NAME | AGE | DEPARTMENT | DATEOFADMIN | CHARGE | SEX |
|----|----------|-----|------------|-------------|--------|-----|
| 2 | Zayana | 18 | ENT | 2005-12-12 | 250 | F |
| 4 | Abhilash | 26 | Surgery | 2006-11-24 | 450 | M |
| 5 | Dhanya | 24 | ENT | 2006-10-20 | 350 | F |
| 6 | Siju | 23 | Cardiology | 2006-10-10 | 800 | M |
| 7 | Ankita | 16 | ENT | 2006-04-13 | 100 | F |
| 8 | Divya | 20 | Cardiology | 2006-11-10 | 300 | F |
| 9 | Nidhin | 25 | Orthopedic | 2006-05-12 | 700 | M |
| 10 | Hari | 28 | Surgery | 2006-03-19 | 450 | M |
| 11 | Rakesh | 45 | ENT | 2008-08-08 | 1200 | M |
| 12 | Rakhi | 45 | ENT | 2007-08-02 | NULL | F |
| 13 | Nishi | 45 | NULL | 2009-08-01 | 450 | F |

11 rows in set (0.00 sec)

mysql> select count(DEPARTMENT) from HOSPITAL;

| count(DEPARTMENT) |
|-------------------|
| 10 |

1 row in set (0.00 sec)

mysql> select count(*) from HOSPITAL;

| count(*) |
|----------|
| 11 |

1 row in set (0.00 sec)

mysql> select SUM(CHARGE) from HOSPITAL where SEX='F';

| SUM(CHARGE) |
|-------------|
| 1450 |

1 row in set (0.00 sec)

2 Schoolbus

mysql> select * from Schoolbus where CAPACITY>NOOFSTUDENTS order by RTNO;

| RTNO | AREACOVERED | CAPACITY | NOOFSTUDENTS | DISTANCE | TRANSPORTER | CHARGES |
|------|-------------|----------|--------------|----------|---------------|---------|
| 11 | Moti Bagh | 35 | 32 | 10 | Kisan Tours | 35000 |
| 3 | Pitampura | 60 | 55 | 30 | Anand Travels | 60000 |

2 rows in set (0.04 sec)

mysql> Select AREACOVERED from SchoolBus where DISTANCE>20 and CHARGES<80000;

| AREACOVERED |
|-------------|
| Pitampura |

1 row in set (0.13 sec)

mysql> Select TRANSPORTER, sum(NOOFSTUDENTS) from Schoolbus group by TRANSPORTER;

| TRANSPORTER | sum(NOOFSTUDENTS) |
|----------------|-------------------|
| Anand Travels | 225 |
| Bhalla Co. | 60 |
| Kisan Tours | 132 |
| Shivam Travels | 120 |
| Speed Travels | 160 |
| Yadav Co. | 190 |

6 rows in set (0.06 sec)

mysql> Select TRANSPORTER, sum(NOOFSTUDENTS) from Schoolbus group by TRANSPORTER Order by 2 DESC;

| TRANSPORTER | sum(NOOFSTUDENTS) |
|----------------|-------------------|
| Anand Travels | 225 |
| Yadav Co. | 190 |
| Speed Travels | 160 |
| Kisan Tours | 132 |
| Shivam Travels | 120 |
| Bhalla Co. | 60 |

6 rows in set (0.00 sec)

mysql> select RTNO, AREACOVERED, CHARGES/NOOFSTUDENTS as "AVERAGE COST PER STUDENT" from SchoolBus;

| RTNO | AREACOVERED | AVERAGE COST PER STUDENT |
|------|---------------|--------------------------|
| 1 | Vasant Kunj | 833.3333333333334 |
| 2 | Hauz Khas | 1062.5 |
| 3 | Pitampura | 1090.909090909091 |
| 4 | Rohini | 1111.1111111111111 |
| 5 | Yamuna Vihar | 916.6666666666666 |
| 6 | Krishna Nagar | 1000 |
| 7 | Vasundhara | 909.0909090909091 |
| 8 | Paschim Vihar | 1375 |
| 9 | Saket | 833.3333333333334 |
| 10 | Jank Puri | 950 |
| 11 | Moti Bagh | 1093.75 |

11 rows in set (0.06 sec)

mysql> Insert into SchoolBus values (11, "Moti Bagh", 35, 32, 10, "Kisan Tours", 35000); Query OK, 1 row affected (0.66 sec)

mysql> Select sum(DISTANCE) from SchoolBus where TRANSPORTER='Yadav Co.';

| sum(DISTANCE) |
|---------------|
| 50 |

1 row in set (0.02 sec)

mysql> Select min(NOOFSTUDENTS) from SchoolBus;

| min(NOOFSTUDENTS) |
|-------------------|
| 100 |

1 row in set (0.00 sec)

mysql> Select avg(CHARGES) from SchoolBus where TRANSPORTER='Anand Travels';

| avg(CHARGES) |
|-------------------|
| 81666.66666666667 |

1 row in set (0.01 sec)

mysql> Select Distinct TRANSPORTER from SchoolBUs;

| TRANSPORTER |
|----------------|
| Shivam Travels |
| Anand Travels |
| Bhalla Co. |
| Yadav Co. |
| Speed Travels |
| Kisan Tours |

6 rows in set (0.00 sec)

3 Graduate

mysql> Select NAME from GRADUATE where DIVI="I" order by NAME;

| NAME |
|---------|
| ARJUN |
| DIVYA |
| DIWAKAR |
| JOHN |
| KARAN |
| REKHA |
| ROBERT |
| RUBINA |

8 rows in set (0.02 sec)

mysql> Select NAME, STIPEND, SUBJECT, STIPEND*12 as "AMOUNT OF STIPEND RECIEVED IN A YEAR" from GRADUATE;

| NAME | STIPEND | SUBJECT | AMOUNT OF STIPEND RECIEVED IN A YEAR |
|---------|---------|-----------|--------------------------------------|
| KARAN | 400 | PHYSICS | 4800 |
| DIWAKAR | 450 | COMP SC | 5400 |
| DIVYA | 300 | CHEMISTRY | 3600 |
| REKHA | 350 | PHYSICS | 4200 |
| ARJUN | 500 | MATHS | 6000 |
| SABINA | 400 | CHEMISTRY | 4800 |
| JOHN | 250 | PHYSICS | 3000 |
| ROBERT | 450 | MATHS | 5400 |
| RUBINA | 500 | COMP SC | 6000 |
| VIKAS | 400 | MATHS | 4800 |

10 rows in set (0.00 sec)

mysql> select count(*) from GRADUATE where SUBJECT="PHYSICS" or SUBJECT="COMP SC";

| count(*) |
|----------|
| 5 |

1 row in set (0.05 sec)

mysql> insert into GRADUATE values (11, "KAJOL", 300, "COMP SC", 75, 1);
Query OK, 1 row affected (0.11 sec)

mysql> Select min(AVERAGE) from GRADUATE where SUBJECT="PHYSICS";

| min(AVERAGE) |
|--------------|
| 63 |

1 row in set (0.00 sec)

mysql> Select SUM(STIPEND) from GRADUATE where DIVI="II";

| SUM(STIPEND) |
|--------------|
| 800 |

1 row in set (0.00 sec)

mysql> Select AVG(STIPEND) from GRADUATE where AVERAGE>=65;

| AVG(STIPEND) |
|--------------|
| 420 |

1 row in set (0.00 sec)

mysql> select COUNT(DIstinct SUBJECT) from GRADUATE;

| COUNT(DIstinct SUBJECT) |
|-------------------------|
| 4 |

1 row in set (0.06 sec)

4 Books and Issued

mysql> select BookName, AuthorName, Price from book where Publisher='First Publ.';

| BookName | AuthorName | Price |
|--------------|-----------------|-------|
| The Tears | William Hopkins | 650 |
| Thunderbolts | Anna Roberts | 750 |

2 rows in set (0.00 sec)

mysql> select BookName from book where Type='Text';

| BookName |
|-----------------|
| My First C++ |
| C++ Brain Works |

2 rows in set (0.00 sec)

mysql> select BookName,Price from book order by price;

| BookName | Price |
|-----------------|-------|
| My First C++ | 350 |
| C++ Brain Works | 350 |
| Fast Cook | 355 |
| The Tears | 650 |
| Thunderbolts | 750 |

5 rows in set (0.00 sec)

mysql> update book set Price=Price+50 where Publisher='EPB'; Query OK, 1 row affected (0.15 sec) Rows matched: 1 Changed: 1 Warnings: 0

mysql> select count(*) from book;

| count(*) |
|----------|
| 5 |

1 row in set (0.00 sec)

mysql> select book.bookid, bookname, quantityissued from book, issued where book.bookid=issued.bookid;

| bookid | bookname | quantityissued |
|--------|--------------|----------------|
| T0001 | My First C++ | 4 |
| C0001 | Fast Cook | 5 |
| F0001 | The Tears | 2 |

3 rows in set (0.00 sec)

mysql> select max(price) from book where quantity>=15;

| max(price) |
|------------|
| 750 |

1 row in set (0.00 sec)

mysql> select bookname, authorname from book where publisher='First Publ.';

| bookname | authorname |
|--------------|-----------------|
| The Tears | William Hopkins |
| Thunderbolts | Anna Roberts |

2 rows in set (0.00 sec)

mysql> select count(distinct publisher) from book where price>=400;

| count(distinct publisher) |
|---------------------------|
| 2 |

1 row in set (0.04 sec)

5 Items and Company

5.1 (I)

mysql> select PNAME,PRICE*QTY from ITEMS,COMPANY where ITEMS.ID=COMPANY.ID and City='Mumbai';

| PNAME | PRICE*QTY |
|-----------|-----------|
| Soap | 2400 |
| Deodorant | 5750 |

2 rows in set (0.01 sec)

5.2 (II)

mysql> select PNAME,COMP,PRICE from ITEMS,COMPANY where ITEMS.ID=COMPANY.ID;

| PNAME | COMP | PRICE |
|-------------|---------|-------|
| Soap | HLL | 12 |
| Paste | Colgate | 39.5 |
| Deodorant | HLL | 125 |
| Hair Oil | Paras | 28.75 |
| Cold Cream | Ponds | 66 |
| Tooth Brush | Wipro | 25 |

6 rows in set (0.00 sec)

5.3 (III)

mysql> delete from ITEMS where MDATE<20070101; Query OK, 2 rows affected (0.06 sec)

mysql> Select * from ITEMS;

| ID | PNAME | PRICE | MDATE | QTY |
|------|------------|-------|------------|-----|
| T001 | Soap | 12 | 2007-03-11 | 200 |
| T003 | Deodorant | 125 | 2007-06-12 | 46 |
| T004 | Hair Oil | 28.75 | 2007-09-25 | 325 |
| T005 | Cold Cream | 66 | 2007-10-09 | 144 |

4 rows in set (0.02 sec)

5.4 (IV)

mysql> update ITEMS set QTY=QTY+20 where PNAME='Soap' or PNAME='Paste';
Query OK, 1 row affected (0.05 sec) Rows matched: 1 Changed: 1 Warnings: 0

mysql> Select * fRom ITEMS;

| ID | PNAME | PRICE | MDATE | QTY |
|------|------------|-------|------------|-----|
| T001 | Soap | 12 | 2007-03-11 | 220 |
| T003 | Deodorant | 125 | 2007-06-12 | 46 |
| T004 | Hair Oil | 28.75 | 2007-09-25 | 325 |
| T005 | Cold Cream | 66 | 2007-10-09 | 144 |

4 rows in set (0.00 sec)

5.5 (V)

mysql> select count(*) from ITEMS,COMPANY where ITEMS.ID=COMPANY.ID;

| count(*) |
|----------|
| 4 |

1 row in set (0.02 sec)

5.6 (VII)

mysql> select count(*) from COMPANY where COMP like 'P_____';

| count(*) |
|----------|
| 2 |

1 row in set (0.03 sec)

5.7 (VIII)

mysql> select PNAME from ITEMS where QTY<100;

| PNAME |
|-----------|
| Deodorant |

1 row in set (0.00 sec)

6 Activity and Coach

mysql> select ActivityName, Acode from Activity order by Acode DESC;

| ActivityName | Acode |
|--------------|-------|
| Discus Throw | 1008 |
| Long Jump | 1005 |
| Shot Put | 1003 |
| High Jump | 1002 |
| Relay 100x4 | 1001 |

5 rows in set (0.00 sec)

mysql> select prizemoney, participantsnum from activity;

| prizemoney | participantsnum |
|------------|-----------------|
| 10000 | 16 |
| 12000 | 10 |
| 8000 | 12 |
| 9000 | 12 |
| 15000 | 10 |

5 rows in set (0.00 sec)

mysql> select name, Acode from coach order by acode;

| name | Acode |
|---------------|-------|
| Ahmad Hussain | 1001 |
| Janila | 1001 |
| Naaz | 1003 |
| Ravinder | 1008 |

4 rows in set (0.00 sec)

mysql> select * from ACTIVITY where ScheduleDate<'20040101' order by ParticipantsNum;

| Acode | ActivityName | ParticipantsNum | PrizeMoney | ScheduleDate |
|-------|--------------|-----------------|------------|--------------|
| 1002 | High Jump | 10 | 12000 | 2003-12-12 |

1 row in set (0.00 sec)

mysql> Select count(distinct ParticipantsNum) from activity;

| count(distinct ParticipantsNum) |
|---------------------------------|
| 3 |

1 row in set (0.00 sec)

mysql> Select max(ScheduleDate), min(ScheduleDate) from activity;

| max(ScheduleDate) | min(ScheduleDate) |
|-------------------|-------------------|
| 2004-03-19 | 2003-12-12 |

1 row in set (0.00 sec)

mysql> select sum(PrizeMoney) from Activity;

| sum(PrizeMoney) |
|-----------------|
| 54000 |

1 row in set (0.00 sec)

mysql> SELECT DISTINCT ParticipantsNum from ACTIVITY;

| ParticipantsNum |
|-----------------|
| 16 |
| 10 |
| 12 |

3 rows in set (0.00 sec)

mysql> select activity.acode, activityname, name from activity,coach where prizemoney>10000 and activity.acode=coach.acode;

| acode | activityname | name |
|-------|--------------|----------|
| 1008 | Discus Throw | Ravinder |

1 row in set (0.00 sec)

7 Employees and EMPSALARY

mysql> select * from employees;

| EmpId | FirstName | LastName | Address | City |
|-------|-----------|----------|-------------------|------------|
| 10 | Ravi | Kumar | Raj Nagar | GZB |
| 105 | Harry | Waltor | Gandhi Nagar | GZB |
| 152 | Sam | Tones | 33 Elm St. | Paris |
| 215 | Sarah | Ackerman | 440 U.S. 110 | Upton |
| 244 | Manila | Sengupta | 24 Friends Street | New Delhi |
| 300 | Robert | Samuel | 9 Fifth Cross | Washington |
| 335 | Ritu | Tondon | Shastri Nagar | GZB |
| 400 | Rachel | Lee | 121 Harrison St. | New York |
| 441 | Peter | Thompson | 11 Red Road | Paris |

9 rows in set (0.11 sec)

mysql> select * from empsalary;

| EmpId | Salary | Benefits | Designation |
|-------|--------|----------|-------------|
| 10 | 75000 | 15000 | Manager |
| 105 | 65000 | 15000 | Manager |
| 152 | 80000 | 25000 | Director |
| 215 | 75000 | 12500 | Manager |
| 244 | 50000 | 12000 | Clerk |
| 300 | 45000 | 10000 | Clerk |
| 335 | 40000 | 10000 | Clerk |
| 400 | 32000 | 7500 | Salesman |
| 441 | 28000 | 7500 | Salesman |

9 rows in set (0.11 sec)

mysql> select firstname, lastname, address, city from employees where city='Paris';

| firstname | lastname | address | city |
|-----------|----------|-------------|-------|
| Sam | Tones | 33 Elm St. | Paris |
| Peter | Thompson | 11 Red Road | Paris |

2 rows in set (0.00 sec)

mysql> select * from employees order by firstname desc;

| EmpId | FirstName | LastName | Address | City |
|-------|-----------|----------|-------------------|------------|
| 215 | Sarah | Ackerman | 440 U.S. 110 | Upton |
| 152 | Sam | Tones | 33 Elm St. | Paris |
| 300 | Robert | Samuel | 9 Fifth Cross | Washington |
| 335 | Ritu | Tondon | Shastri Nagar | GZB |
| 10 | Ravi | Kumar | Raj Nagar | GZB |
| 400 | Rachel | Lee | 121 Harrison St. | New York |
| 441 | Peter | Thompson | 11 Red Road | Paris |
| 244 | Manila | Sengupta | 24 Friends Street | New Delhi |
| 105 | Harry | Waltor | Gandhi Nagar | GZB |

9 rows in set (0.00 sec)

mysql> select firstname, lastname, salary from employees, empsalary where employees.empid=empsalary.empid;

| firstname | lastname | salary |
|-----------|----------|--------|
| Ravi | Kumar | 75000 |
| Harry | Waltor | 65000 |
| Sam | Tones | 80000 |
| Sarah | Ackerman | 75000 |
| Manila | Sengupta | 50000 |
| Robert | Samuel | 45000 |
| Ritu | Tondon | 40000 |
| Rachel | Lee | 32000 |
| Peter | Thompson | 28000 |

9 rows in set (0.06 sec)

mysql> select max(salary) from empsalary where designation="Manager" or designation="Clerk";

| max(salary) |
|-------------|
| 75000 |

1 row in set (0.00 sec)

mysql> mysql> select firstname, salary from employees, empsalary where designation="Salesman" and Employees.empid=Empsalary.empid;

| firstname | salary |
|-----------|--------|
| Rachel | 32000 |
| Peter | 28000 |

2 rows in set (0.00 sec)

mysql> select count(distinct designation) from empsalary;

| count(distinct designation) |
|-----------------------------|
| 4 |

1 row in set (0.00 sec)

mysql> select designation, sum(salary) from empsalary group by designation having count(*)>2;

| designation | sum(salary) |
|-------------|-------------|
| Clerk | 135000 |
| Manager | 215000 |

2 rows in set (0.00 sec)

mysql> select sum(benefits) from empsalary where designation="Clerk";

| sum(benefits) |
|---------------|
| 32000 |

1 row in set (0.02 sec)

8 Products

mysql> create table products(productID integer, productcode varchar(30),name varchar(30), quantity integer,price decimal(10,2)); Query OK, 0 rows affected (0.09 sec)

mysql> insert into products values(1001,"pen","pen red",5000,1.23); Query OK, 1 row affected (0.03 sec)

mysql> insert into products values(1002,"pen","pen blue",8000,1.25); Query OK, 1 row affected (0.04 sec)

mysql> insert into products values(1003,"pen","pen black",2000,1.25); Query OK, 1 row affected (0.03 sec)

mysql> insert into products values(1004,"pec","pencil 2B",10000,0.48); Query OK, 1 row affected (0.04 sec)

mysql> insert into products values(1005,"pec","pencil 2H",8000,0.49); Query OK, 1 row affected (0.03 sec)

mysql> insert into products values(1006,"pec","pencil HB",0.9999999.99); Query OK, 1 row affected (0.07 sec)

mysql> select * from products;

| productID | productcode | name | quantity | price |
|-----------|-------------|-----------|----------|------------|
| 1001 | pen | pen red | 5000 | 1.23 |
| 1002 | pen | pen blue | 8000 | 1.25 |
| 1003 | pen | pen black | 2000 | 1.25 |
| 1004 | pec | pencil 2B | 10000 | 0.48 |
| 1005 | pec | pencil 2H | 8000 | 0.49 |
| 1006 | pec | pencil HB | 0 | 9999999.99 |

6 rows in set (0.11 sec)

mysql> select name,price from products where price<1.0;

| name | price |
|-----------|-------|
| pencil 2B | 0.48 |
| pencil 2H | 0.49 |

2 rows in set (0.04 sec)

mysql> select name,quantity from products where quantity <= 2000;

| name | quantity |
|-----------|----------|
| pen black | 2000 |
| pencil HB | 0 |

2 rows in set (0.00 sec)

mysql> select name,price from products where productcode="pen";

| name | price |
|-----------|-------|
| pen red | 1.23 |
| pen blue | 1.25 |
| pen black | 1.25 |

3 rows in set (0.01 sec)

mysql> select name,price from products where name like "pencil%";

| name | price |
|-----------|------------|
| pencil 2B | 0.48 |
| pencil 2H | 0.49 |
| pencil HB | 9999999.99 |

3 rows in set (0.00 sec)

mysql> select name,price from products where name like "p_%";

| name | price |
|-----------|------------|
| pen red | 1.23 |
| pen blue | 1.25 |
| pen black | 1.25 |
| pencil 2B | 0.48 |
| pencil 2H | 0.49 |
| pencil HB | 9999999.99 |

6 rows in set (0.00 sec)

mysql> select*from products where quantity>=5000 and name like "pen%";

| productID | productcode | name | quantity | price |
|-----------|-------------|-----------|----------|-------|
| 1001 | pen | pen red | 5000 | 1.23 |
| 1002 | pen | pen blue | 8000 | 1.25 |
| 1004 | pec | pencil 2B | 10000 | 0.48 |
| 1005 | pec | pencil 2H | 8000 | 0.49 |

4 rows in set (0.00 sec)

mysql> select*from products where quantity>=5000 and name like "pen%" and price <1.24;

| productID | productcode | name | quantity | price |
|-----------|-------------|-----------|----------|-------|
| 1001 | pen | pen red | 5000 | 1.23 |
| 1004 | pec | pencil 2B | 10000 | 0.48 |
| 1005 | pec | pencil 2H | 8000 | 0.49 |

3 rows in set (0.00 sec)

mysql> select*from products where not(quantity>=5000 and name like "pen%");

| productID | productcode | name | quantity | price |
|-----------|-------------|-----------|----------|------------|
| 1003 | pen | pen black | 2000 | 1.25 |
| 1006 | pec | pencil HB | 0 | 9999999.99 |

2 rows in set (0.00 sec)

mysql> select*from products where name in("pen red","pen black");

| productID | productcode | name | quantity | price |
|-----------|-------------|-----------|----------|-------|
| 1001 | pen | pen red | 5000 | 1.23 |
| 1003 | pen | pen black | 2000 | 1.25 |

2 rows in set (0.00 sec)

mysql> select*from products where (price between 1.0 and 2.0) or (quantity between 1000 and 2000);

| productID | productcode | name | quantity | price |
|-----------|-------------|-----------|----------|-------|
| 1001 | pen | pen red | 5000 | 1.23 |
| 1002 | pen | pen blue | 8000 | 1.25 |
| 1003 | pen | pen black | 2000 | 1.25 |

3 rows in set (0.08 sec)

mysql> select*from products where not((price between 1.0 and 2.0) or (quantity between 1000 and 2000));

| productID | productcode | name | quantity | price |
|-----------|-------------|-----------|----------|------------|
| 1004 | pec | pencil 2B | 10000 | 0.48 |
| 1005 | pec | pencil 2H | 8000 | 0.49 |
| 1006 | pec | pencil HB | 0 | 9999999.99 |

3 rows in set (0.00 sec)

mysql> insert into products values(1006,null,null,null,null); Query OK, 1 row affected (0.13 sec)

mysql> select*from products where productcode is null;

| productID | productcode | name | quantity | price |
|-----------|-------------|------|----------|-------|
| 1006 | NULL | NULL | NULL | NULL |

1 row in set (0.00 sec)

mysql> select*from products where productcode= null; Empty set (0.00 sec)

9 Sender and Recipient

mysql> create table sender(senderID varchar(20) primary key, sendername varchar(20),senderaddress varchar(30),sendercity varchar(30)); Query OK, 0 rows affected (0.36 sec)

mysql> insert into sender values("ND01","R Jain","2,ABC Appts","New Delhi"); Query OK, 1 row affected (0.15 sec)

mysql> insert into sender values("MU02","H Sinha","12 Newton","Mumbai"); Query OK, 1 row affected (0.03 sec)

mysql> insert into sender values("MU15","S Jha","27/A Park Street","Mumbai"); Query OK, 1 row affected (0.04 sec)

mysql> insert into sender values("ND50","T Prasad","122-K,SDA","New Delhi"); Query OK, 1 row affected (0.04 sec)

mysql> create table receipient(recID varchar(10), senderID varchar(20), recname varchar(30),recaddress varchar (20),reccity varchar(20),foreign key(senderID) references sender(senderID)); Query OK, 0 rows affected (0.10 sec)

mysql> insert into receipient values("KO05","ND01","R Bajpayee","5,Central Avenue","Kolkata"); Query OK, 1 row affected (0.05 sec)

mysql> insert into receipient values("ND08","MU02","S Mahajan","116,A Vihar","New Delhi"); Query OK, 1 row affected (0.14 sec)

mysql> insert into receipient values("MU19","ND01","H Singh","2A,Andheri East","Mumbai"); Query OK, 1 row affected (0.04 sec)

mysql> insert into receipient values("MU32","MU15","P k Swamy","B5, CS Terminus","Mumbai"); Query OK, 1 row affected (0.04 sec)

mysql> insert into receipient values("ND48","ND50","S Tripathi","13,B1D,MayurVihar","New Delhi"); Query OK, 1 row affected (0.13 sec)

mysql> select*from sender where sendercity="Mumbai";

| senderID | sendername | senderaddress | sendercity |
|----------|------------|------------------|------------|
| MU02 | H Sinha | 12 Newton | Mumbai |
| MU15 | S Jha | 27/A Park Street | Mumbai |

2 rows in set (0.14 sec)

mysql> select recID, sendername,senderaddress,recname,recaddress from sender,receipient where sender.senderID=receipient.senderID;

| recID | sendername | senderaddress | recname | recaddress |
|-------|------------|------------------|------------|-------------------|
| ND08 | H Sinha | 12 Newton | S Mahajan | 116,A Vihar |
| MU32 | S Jha | 27/A Park Street | P k Swamy | B5, CS Terminus |
| KO05 | R Jain | 2,ABC Appts | R Bajpayee | 5,Central Avenue |
| MU19 | R Jain | 2,ABC Appts | H Singh | 2A,Andheri East |
| ND48 | T Prasad | 122-K,SDA | S Tripathi | 13,B1D,MayurVihar |

5 rows in set (0.00 sec)

mysql> select*from receipient order by recname;

| recID | senderID | recname | recaddress | reccity |
|-------|----------|------------|-------------------|-----------|
| MU19 | ND01 | H Singh | 2A,Andheri East | Mumbai |
| MU32 | MU15 | P k Swamy | B5, CS Terminus | Mumbai |
| KO05 | ND01 | R Bajpayee | 5,Central Avenue | Kolkata |
| ND08 | MU02 | S Mahajan | 116,A Vihar | New Delhi |
| ND48 | ND50 | S Tripathi | 13,B1D,MayurVihar | New Delhi |

5 rows in set (0.00 sec)

mysql> select count(recname),reccity from receipient group by reccity;

| count(recname) | reccity |
|----------------|-----------|
| 1 | Kolkata |
| 2 | Mumbai |
| 2 | New Delhi |

3 rows in set (0.04 sec)

mysql> select distinct sendercity from sender;

| sendercity |
|------------|
| Mumbai |
| New Delhi |

2 rows in set (0.00 sec)

mysql> select recname,recaddress from receipient where reccity not in("Mumbai","Kolkata");

| recname | recaddress |
|------------|-------------------|
| S Mahajan | 116,A Vihar |
| S Tripathi | 13,B1D,MayurVihar |

2 rows in set (0.00 sec)

mysql> select recID,recname from receipient where senderID="MU02" or senderID="ND50";

| recID | recname |
|-------|------------|
| ND08 | S Mahajan |
| ND48 | S Tripathi |

2 rows in set (0.00 sec)

mysql> select A.sendername, B.recname from sender A,receipient B where A.senderID=B.senderID and B.reccity="Mumbai";

| sendername | recname |
|------------|-----------|
| S Jha | P k Swamy |
| R Jain | H Singh |

2 rows in set (0.00 sec)